

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P302564

Luminaire Tested: **FSP-22-32-50-CP250**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P302564
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-22-32-50-CP250
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (168) 5000 CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

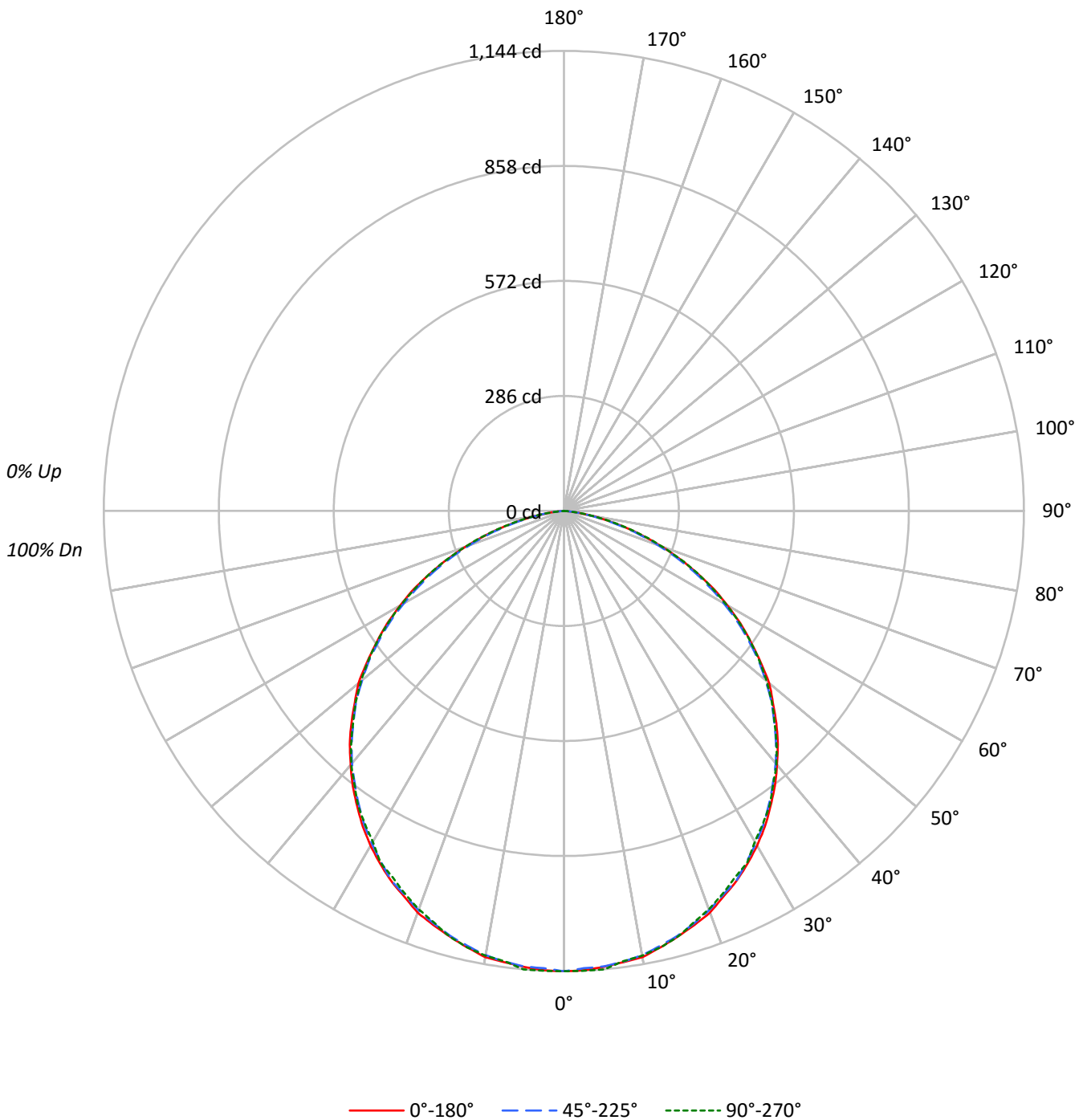
Lumens per Lamp: N/A
Luminaire Lumens: 3066.4 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 30
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	62	56	68	61	56	66	60	55	64	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3079	3079	3079
5°	3074	3071	3091
10°	3078	3064	3068
15°	3053	3046	3053
20°	3044	3025	3018
25°	3016	3012	2986
30°	2986	2966	2951
35°	2944	2923	2931
40°	2897	2879	2889
45°	2844	2814	2819
50°	2792	2739	2755
55°	2663	2628	2657
60°	2528	2473	2514
65°	2326	2269	2334
70°	2043	1973	2053
75°	1654	1562	1681
80°	1125	1065	1164
85°	509	472	509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	3.5
10°-20°	308.8	10.1
20°-30°	465.9	15.2
30°-40°	558.2	18.2
40°-50°	572.9	18.7
50°-60°	503.6	16.4
60°-70°	356.1	11.6
70°-80°	166.6	5.4
80°-90°	26.1	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	882.9	28.8
0°-40°	1441.1	47.0
0°-60°	2517.6	82.1
0°-90°	3066.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3066.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1138	1139	1137	1138	1144	108
15°	1096	1096	1093	1092	1096	310
25°	1016	1013	1014	1008	1006	468
35°	896	896	890	890	892	561
45°	747	745	740	741	741	576
55°	568	564	560	565	566	508
65°	365	360	356	362	367	362
75°	159	153	150	158	162	170
85°	16	16	15	18	16	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1144.3	1144.3	1144.3	1144.3	1144.3
2.5°	1143.0	1141.8	1137.9	1141.8	1144.3
5°	1137.9	1139.2	1136.7	1137.9	1144.3
7.5°	1131.6	1132.8	1130.3	1130.3	1129.0
10°	1126.5	1126.5	1121.4	1121.4	1122.7
12.5°	1111.2	1113.7	1107.4	1109.9	1111.2
15°	1095.9	1095.9	1093.4	1092.1	1095.9
17.5°	1079.4	1079.4	1075.6	1075.6	1073.0
20°	1062.8	1060.3	1056.5	1052.7	1053.9
22.5°	1037.4	1038.7	1033.6	1033.6	1031.0
25°	1015.7	1013.2	1014.5	1008.1	1005.6
27.5°	989.0	987.7	983.9	983.9	986.5
30°	961.0	957.2	954.6	952.1	949.6
32.5°	930.5	927.9	924.1	922.8	921.5
35°	896.1	896.1	889.7	889.7	892.3
37.5°	861.7	864.3	854.1	855.4	855.4
40°	824.8	826.1	819.7	821.0	822.3
42.5°	787.9	785.4	780.3	784.1	782.8
45°	747.2	744.6	739.5	740.8	740.8
47.5°	705.2	702.6	700.1	700.1	701.3
50°	667.0	659.3	654.2	655.5	658.1
52.5°	616.1	614.8	609.7	611.0	613.5
55°	567.7	563.9	560.1	565.1	566.4
57.5°	520.6	516.8	511.7	514.2	518.1
60°	469.7	463.3	459.5	463.3	467.1
62.5°	420.0	411.1	407.3	412.4	416.2
65°	365.3	360.2	356.4	361.5	366.6
67.5°	313.1	304.2	302.9	310.6	314.4
70°	259.7	250.8	250.8	257.1	260.9
72.5°	207.5	198.6	199.8	207.5	211.3
75°	159.1	152.7	150.2	157.8	161.7
77.5°	113.3	106.9	106.9	114.6	114.6
80°	72.6	68.7	68.7	73.8	75.1
82.5°	40.7	39.5	38.2	40.7	42.0
85°	16.5	16.5	15.3	17.8	16.5
87.5°	3.8	3.8	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)